HUMAN EXPOSURE JUSTIFICATION PARAGRAPHS for RRS#3 SITES
(Please update as appropriate)

ALLIED PAPER, INC./PORTAGE CREEK/KALAMAZOO RIVER

The Allied Paper Inc. /Portage Creek/Kalamazoo River Superfund Site is considered "Current Human Exposures Not Under Control" because the fish in the river are contaminated above health-based levels for human consumption due to PCB contamination. Although there is a fish advisory for the river, and warning signs posted along the floodplains, there is evidence of subsistence fishing from the river. The warning signs have been vandalized in the past and repaired by MDEQ. In addition, in the floodplains along several miles of the river there are PCB-contaminated sediments above health-based limits for direct contact for recreational users. A large portion of this land is owned by the state; there is evidence that this property is used as a recreational area.

From April 2007 through April 2009, an excavation and dredging removal action was conducted to address these exposure pathways in a portion of the river near Plainwell, MI, and 130,000 cubic yards of PCB-contaminated sediment was removed. A second removal action to address the exposure pathways in the river near the Plainwell No. 2 Dam area was conducted from August 2009 through December 2010 and removed 14,000 cubic yards of PCB-contaminated soil and sediment. A third removal project began in August 2011 and will continue through December 2014, and will remove approximately 17,000 cubic yards of PCB-contaminated sediment from Portage Creek.

Approximately 75 additional miles of contaminated river sediments remain to be addressed. A supplemental Remedial Investigation/Feasibility Study in the Kalamazoo River and Portage Creek is underway. Investigative activities for the first river area began in September 2007 and were completed in 2009. A remedy selection decision for the first river area is scheduled for 2012. Investigative activities for the entire river will extend until 2019.

AMCAST INDUSTRIAL CORPORATION

There is Insufficient Data to determine the Current Human Exposure Control status at the Amcast Superfund Site. Remedial Investigation (RI) sampling activities to determine the nature and extent of contamination were completed in Fall 2011 and the data is being evaluated. The sources of potential human exposure to site contamination will be evaluated in a risk assessment that will be prepared as part of the RI.

ASARCO TAYLOR SPRINGS

There is insufficient data to determine the site-wide Human Exposure Control status at the ASARCO Superfund Site, where lead is the primary contaminant of concern. Current known exposure pathways of concern are direct contact with soils on the ASARCO property and direct contact with soils in residential, public and industrial areas. A Removal Action completed in March 2008 addressed residential properties that had lead

contamination above 1,200 ppm. Additional information is needed to determine if site surface soil contamination is above acceptable levels for the current exposure scenarios. The potentially responsible party is currently in the process of conducting a remedial investigation at the site to characterize the nature and extent of the contamination and assess site risks. The RI sampling is scheduled to be completed in spring 2013, after which the risk assessment will be conducted.

CEDAR CREEK

The Cedar Creek site is considered Current Human Exposure Not Under Control because humans could be exposed via dermal contact to the PCB-contaminated sediments in the creek and/or by eating the PCB-contaminated fish from the creek. Signs are posted along the creek warning people not to eat the fish or swim/wade in the creek. In addition, a fish consumption advisory has been issued for the creek. The creek runs through a populated area in the center of town, and is adjacent to a large city park. There is evidence that the signs and fish consumption advisories are not effectively preventing exposures to the contaminated sediments. The RI for the creek portion of the site (OU2) was approved in May 2012 and the FS will soon begin.

DEPUE/NEW JERSEY ZINC/MOBIL CHEMICAL CORP.

The DePue/New Jersey Zinc/Mobil Chemical Corp. Superfund site is considered "Current Human Exposures Not Under Control" because surface and subsurface soil samples at 17 off-site properties exceed health-based residential screening levels for lead, arsenic, and cadmium based on data contained in the Removal Action Limit Assessment Report that was finalized in January 2011. Illinois EPA, the lead enforcement agency at the site, is working with the potentially responsible parties (PRPs) to accelerate the cleanup of the off-site soils operable unit (OU4). In March 2012, the PRPs submitted an OU4 draft Design Study, which is expected to be completed by March 2013. Illinois EPA anticipates that residential cleanup work will begin during the 2013 construction season. An extensive public education and awareness program has been implemented to assist residents in reducing potential ingestion and/or inhalation of soil.

FOX RIVER NRDA/PCB RELEASES

The Lower Fox River and Green Bay site is considered "Current Human Exposures Not Under Control" because of human ingestion of PCB-contaminated fish. Fish advisories are in place and signs are posted along the river, but fishing has been observed and we believe the fish are being consumed. The remedial action for the site, which is being taken to address the risks to human health, is well underway and includes a combination of dredging, capping, and covering PCB-contaminated sediments, along with monitored natural recovery for some portions of the site. Remedial action construction activities at the site are expected to be completed by 2017, although it may take some time after completion of remediation for fish tissue concentrations to decrease.

HEGELER ZINC

There is insufficient information to determine the site-wide Human Exposure Control status at the Hegeler Zinc Superfund Site. Although a remedial investigation (RI) was completed in April 2007, based on the RI conclusions and additional evaluations, EPA determined that supplemental RI (SRI) activities needed to be conducted. EPA conducted residential soil sampling in December 2007, July 2009, and October 2010 in the neighborhoods east and north of the site, focusing on metals such as arsenic and lead. A draft risk assessment report based on the residential data is being prepared. Additionally, in response to the bankruptcy of a responsible party, in August 2009 EPA initiated a fund-lead work assignment to continue the SRI work at the former Hegeler Zinc property (including a supplemental human health risk assessment) that originally was to be conducted by the PRP. Three phases of supplemental groundwater and subsurface geochemisty investigations have been completed, which indicate that groundwater results in the mid-depth and shallow wells exceed human health risk screening levels and Federal maximum contaminant levels for metals. In the summer of 2012, EPA plans to conduct Phase IV groundwater investigations to determine the nature and extent of mid-depth groundwater contamination off-site and whether any nearby residents are drinking contaminated groundwater.

MATTHIESSEN AND HEGELER ZINC COMPANY

The Matthiessen and Hegeler Zinc Company Site is considered "Current Human Exposures Not Controlled." The Site was historically used primarily for mining and smelting activities and is currently inactive, except on the portion of the Site operated by Carus Chemical Company which has never been involved in any of the smelting activities. The Site is entirely fenced except along the Little Vermilion River, however it is evident that trespassers enter the Site. A remedial investigation was initiated in 2007 and the sampling and risk assessments are expected to be finalized in summer 2012. The data and risk assessments show that there are unacceptable risks associated with the Site, particularly for the commercial/industrial on-site worker scenario and for trespassers. On-site soil risks are driven by potential exposure to metals (primarily arsenic, cadmium, manganese and zinc), benzo(a)pyrene and other carcinogenic PAHs, asbestos and PCBs.

OLD AMERICAN ZINC

The Old American Zinc site is considered "Current Human Exposures Not Under Control." In 2002 and 2003 a removal action was conducted by the PRPs to address lead contamination in residential yards, commercial lots and vacant lots. Some contaminated residential yards remain contaminated because the owners refused access for the removal action. In addition, the March 2009 RI Report documents metal concentrations, including lead, zinc, cadmium and arsenic, that exceed long-term health-based limits for human exposure in soils in several residential yards, vacant lots, and alleyways near the site. Owners of contaminated residential property have been informed about the contamination and have been provided information about how to control exposures via fact sheets and community interviews. These properties will need to be remediated as part of the overall remedial action for the site. A ROD is planned for summer 2012.

ONALASKA MUNICIPAL LANDFILL

The Onalaska Municipal Landfill site is considered "Current Human Exposures Not Under Control" because the people who live at two nearby residences are ingesting drinking water contaminated with inorganics. The private water supply wells at the two nearby residences obtain their drinking water from the upper portion of an aquifer that has elevated levels of metals, including manganese. The State of Wisconsin recently promulgated a health-based drinking water standard for manganese, and the concentrations in the two residential wells exceed the new standard. EPA and the Wisconsin Department of Natural Resources issued a Record of Decision Amendment on September 24, 2012, that calls for the replacement of the two affected residential wells with new wells drilled deeper into the uncontaminated portion of the aquifer. Human exposures will be considered "under control" as soon as the two private wells have been replaced. The well replacement work is expected to occur in 2013.

SHEBOYGAN HARBOR & RIVER

The Sheboygan River and Harbor Superfund site is considered "Current Human Exposures Not Under Control" because of human ingestion of contaminated fish. Fish contaminants of concern are PCBs and heavy metals, including arsenic, chromium, copper, lead, and zinc. There is a fish advisory in place and signs are posted in the area warning against fish consumption, however, fishing has been observed. Fish are taken off-site and we believe the fish are being consumed. The Superfund program periodically mails fact sheets about site activities to community members. Information about the fish advisory and contact information is included in the fact sheets. EPA attends periodic meetings at the request of local groups to provide updates on the progress of work at the site and upcoming activities. Approximately 33,000 cubic yards of PCB-contaminated sediment was dredged from the Upper River during an earlier phase of the remedial action. The final phase of sediment cleanup work in the river began in April 2011, and approximately 50,000 cubic yards of PCB-contaminated sediment will be dredged from the Lower River and Inner Harbor. The cleanup work was scheduled to be completed by late 2011, but operational problems with the dredge caused delays and the work is now scheduled to be completed during the 2012 construction season.

SPARTAN CHEMICAL

There is Insufficient Data to determine the site-wide Current Human Exposure Control Status at the Spartan Chemical Company Superfund site. There are soils on-site contaminated with volatile organic compounds (VOCs), for which soil vapor extraction (SVE) was selected as the remedial action in a 1998 interim Record of Decision. The SVE system was installed and operating but is currently shut down. A Record of Decision was issued in September 2007 identifying the final remedy for the site to address remaining contamination in site soil, soil vapor, and groundwater. As part of the investigative work to support the design MDEQ is collecting additional information to determine if surrounding residences or commercial/industrial buildings have unacceptable levels of indoor vapor intrusion from site-related VOC contamination. The design is

expected to be completed in 2012, and Michigan DEQ is planning to start the remedial action as soon as funding is available. Michigan DEQ expects to know whether vapor intrusion is a problem by the end of 2012.

TEN-MILE DRAIN

There is Insufficient Data to determine the site-wide Human Exposure Control Status at the Ten-Mile Drain Superfund Site. PCBs continue to infiltrate into the Ten Mile storm sewer drain system, which empties into the Lange and Revere Street canals connected to Lake St. Clair. The site was placed on the NPL in September 2010 and EPA is in the early stages of the remedial investigation, with a focus on identifying the source of the PCBs. There is no human exposure to materials in the drain system, which is located approximately 15 feet below ground. However, EPA collected surface and subsurface sediment samples from the canals in August 2011 and PCB concentrations were as high as 500 ppm. In May 2011 the Michigan Department of Community Health issued a "do not eat" fish consumption advisory for the canals and posted warning signs along the canals based on the PCB levels in fish tissue samples collected in April 2010. EPA does not know whether the fish advisories are keeping people from eating fish taken from the canals. EPA also does not know whether there are unacceptable risks to humans from recreational use of the canals. This will be investigated during the RI.

U.S. SMELTER AND LEAD REFINERY, INC.

The U S Smelter and Lead Superfund Site is considered "Current Human Exposures Not Under Control". As a part of the Remedial Investigation (RI), EPA sampled over 90 properties in the roughly 1200 property residential portion (operable unit 1) of the site. About half of these 90 properties have lead levels above the residential screening level for lead, 400 ppm. EPA contacted those residents whose yards were sampled as a part of the RI and informed them of their lead levels. EPA provided guidance on how to reduce their risk of lead exposure to everyone whose property was sampled, and EPA has repeatedly shared this guidance at public meetings for the site. Additionally, 29 properties with lead levels exceeding 1200 ppm have been remediated through time-critical removal actions. The remaining contaminated yards identified in the RI, as well as other contaminated yards not yet sampled, will be addressed by the Remedial Action for the residential portion of the site. EPA plans to select a remedy for OU1 by the end of 2012.